

## Appendix 1

**Table I: Rainfall in towns of the Alaknanda Basin, 2008**

|              |                           |                       | Seasonal rainfall % |             |         |              |
|--------------|---------------------------|-----------------------|---------------------|-------------|---------|--------------|
| Station name | Station altitude in meter | Annual rainfall in cm | Winter              | Pre-Monsoon | Monsoon | Post-monsoon |
| Srinagar     | 550                       | 92.5                  | 16                  | 17.7        | 58.8    | 8.5          |
| Karnprayag   | 883                       | 147.1                 | 10.5                | 13.4        | 15.9    | 10.2         |
| Okhimath     | 1578                      | 199.4                 | 8.8                 | 11.3        | 71.3    | 8.6          |
| Pauri        | 1630                      | 130.3                 | 14.8                | 14.7        | 61.5    | 9.0          |
| Joshimath    | 1875                      | 107.5                 | 15.4                | 10.3        | 53.1    | 12.2         |

**Source:** Forest Working Plan, Nainital Working Circle, in The Alaknanda basin (Uttarakhand Himalaya): A Study on Enhancing and Diversifying Livelihood Options in an Ecologically Fragile Mountain Terrain by V.P.Sati, 2009.

**Table II: Suspended sediment load (ha.m) at Chauldhoaghat in the Subansiri basin**

| <b>Years</b> | <b>Total<br/>Suspended<br/>Sediment in<br/>ha.m</b> |
|--------------|---|
| 1974         | 3276.03   |
| 1975         | 2363.99   |
| 1976         | 1436.56   |
| 1977         | 626.09  |
| 1978         | 1695.613  |
| 1979         | 1968.89   |
| 1980         | 1223.57   |
| 1981         | 1223.51   |
| 1982         | 827.14  |
| 1983         | 1998.01   |
| 1984         | 889.707   |
| 1985         | 1651.84   |
| 1986         | 653.26  |
| 1987         | 2451.13   |
| 1988         | 1337.99   |
| 1989         | 903.305   |
| 1990         | 518.891   |
| 1991         | 1724.04   |

(Source: Brahmaputra Board, 2002)

**Table III: Sediment load and Suspended sediment concentration in the Alaknanda basin for the year 2004-05**

| <b>Months</b> | <b>SSC in mg/l<br/>(b)</b> | <b>Sediment load<br/>10<sup>6</sup> ton</b> |
|---------------|----------------------------|---|
| Jul-04        | 939                        | 3.24  |
| Aug-04        | 927                        | 4.505                                       |
| Sep-04        | 276                        | 0.731                                       |
| Oct-04        | 137                        | 0.247                                       |
| Nov-04        | 48                         | 0.024                                       |
| Dec-04        | 21                         | 0.009                                       |
| Jan-05        | 27                         | 0.012                                       |
| Feb-05        | 50                         | 0.011                                       |
| Mar-05        | 70                         | 0.02  |
| Apr-05        | 198                        | 0.084                                       |
| May-05        | 418                        | 0.272                                       |
| Jun-05        | 608                        | 1.029                                       |

(Source: Chakrapani and Saini, 2009; Temporal and spatial variations in water discharge and sediment load in the Alaknanda and Bhagirathi Rivers in Himalaya, India)